What is Claimed is:

1. A method for encryption of digital data for transmission from a transmitter to a receiver, comprising the steps of:

a) providing digital data to a transmitter;

b) performing XOR masking of the digital data with an XOR mask to produce masked digital data;

c) scrambling the masked digital data using a scrambling formula to produce encrypted digital data; and

d) transmitting the encrypted digital data to a receiver.

2. The method of claim 1, wherein subsequent to step (a) and prior to step (b), the method further comprises the step of

performing transition controlled encoding of the provided digital data to produce encoded digital data, such that step (b) XOR masks the encoded digital data to produce masked digital data.

3. The method of claim 2, wherein subsequent to XOR masking step (b) and prior to scrambling step (c), the method further comprises the step of

DC balancing the masked digital data to produce DC balanced, masked digital data, such that step (c) scrambles the DC balanced, masked digital data to produce encrypted digital data.

4. The method of claim 3, wherein the method further comprises the step of

breaking the digital data up into at least a first portion and a second portion and wherein steps (a) to (c) are performed for the first portion and for the second portion of the digital data.

5. The method of claim 3, wherein the digital data is digital video data comprising pixel data sets, and steps (a) to (c) are performed for each pixel data set.

6. The method of claim 4, wherein prior to step (b), the method further comprises the steps of

i) exchanging a master key between the transmitter and the receiver; and

ii) deriving from the master key a first slave key for the first portion of data, and a second slave key for the second portion of data.

7. The method of claim 6, wherein prior to step (b) and subsequent to step (ii), the method further comprises the step of

selecting first and second XOR masks based on information obtained from the first and second slave keys, respectively, the first and second XOR masks for performing the XOR masking of step (b) on the first and second portions of data, respectively.

8. The method of claim 6, wherein subsequent to step (ii) and prior to step (c), the method comprises the step of

selecting first and second scrambling formulas based on information obtained from the first and second slave keys, respectively, the first and second scrambling formulas for performing the scrambling of step (c) on the first and second portions of digital data, respectively.

9. The method of claim 6, wherein the step of deriving first and second slave keys from the master key comprises the steps of

selecting M bits of the master key as initial values for a M-bit LFSR;

selecting a LFSR configuration based on N bits of the master key; and

using the selected LFSR configuration and the M-bit LFSR to derive first and second slave keys.

10. The method of claim 8, wherein the M-bit LFSR is a 32-bit LFSR.

11. The method of claim 7, wherein the XOR masks are XOR masks that preserve the TMDS code space.

12. The method of claim 8, wherein the scrambling formulas are scrambling formulas that preserve the TMDS code space.

13. An apparatus for encryption of digital data for transmission from a transmitter to a receiver, the apparatus comprising

a communication link having a first end and a second end,

a video transmitter coupled to the first end of the communication link, the video transmitter comprising

means for receiving digital data;

transition controller for performing transition controlled encoding of the provided digital data to produce encoded digital data.

XOR mask logic for performing XOR masking of the encoded digital data with an XOR mask to produce masked digital data;

DC balancing logic for DC balancing the masked digital data to produce DC balanced, masked digital data;

scrambling logic for scrambling the DC balanced, masked digital data using a scrambling formula to produce encrypted digital data; and

means for transmitting the encrypted digital data; and

a video receiver coupled to the second end of the communication link for receiving the encrypted digital data.

14. The apparatus according to claim 13, wherein the apparatus further comprises

means for breaking up the digital data into at least a first portion and a second portion and wherein the apparatus operates on the first portion and on the second portion of the digital data.

15. The apparatus according to claim 13, wherein the apparatus further comprises

means for breaking the digital data into pixel data sets, and wherein the apparatus operates on each pixel data set.

16. The apparatus according to claim 14, wherein the apparatus further comprises

means for exchanging a master key between the transmitter and the receiver; and

means for deriving from the master key a first slave key for the first portion of data, and a second slave key for the second portion of data.

17. The apparatus according to claim 16, wherein the apparatus further comprises

means for selecting first and second XOR masks based on information obtained from the first and second slave keys, respectively, the first and second XOR masks being used by the XOR masking means for XOR masking the first and second portions of data, respectively.

18. The apparatus according to claim 16, wherein the apparatus further comprises

means for selecting first and second scrambling formulas based on information obtained from the first and second slave keys, respectively, the first and second scrambling formulas being used by the scrambling means for scrambling the first and second portions of digital data, respectively.

19. The apparatus according to claim 16, wherein said means for deriving from the master key a first slave key for the first portion of data, and a second slave key for the second portion of data comprises

means for selecting M bits of the master key as initial values for a M-bit LFSR;

means for selecting a LFSR configuration based on N bits of the master key; and

means for using the selected LFSR configuration and the M-bit LFSR to derive first and second slave keys.

20. A method for encryption in a high-speed digital video transmission system, the method comprising the steps of:

a) performing transition controlled encoding of a first sequence of n bit data words into encoded n+1 bit data characters where the n is a positive integer,

b) DC balancing the encoded n+1 bit data characters to produce DC balanced, masked n+2 bit data characters;

c) encoding control data into encoded n+2 bit control characters,

d) encrypting the encoded n+2 bit control characters to produce n+2 bit encrypted control characters,

e) generating a serial data stream in response to the encrypted data characters and encrypted control characters, and

f) transmitting the serial data stream over a communication link.

21. The method of claim 20, wherein the step of encrypting the encoded n+2 bit control characters comprises the step of

including information regarding the timing of transmission of another encoded control character in the encoded n+2 bit control characters.